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COMMUNICATIONS

A CASE OF SCLEROSING KERATITIS PROFUNDA

BY

A. VISWALINGAM

KUALA LUMPUR, FEDERATED MALAY STATES

IN October, 1931, A.L.J., an Anglo-Indian engineer, aged 59 years presented himself for examination on account of sore eyes and photophobia. The visual actuity was R.V. 6/12 with +0.75 sph. = 6/6. L.V. 6/18 with +1 sph. = 6/6. The pupils at that time were active to light and accommodation, the anterior chamber was slightly shallow and the tension not raised. The filtration angle was " crowded."

He had suffered from " gravel " in the urine and had passed a calculus on one occasion some years' ago, otherwise his general health was good. The Wassermann reaction was negative and there was no clinical evidence of focal sepsis, tuberculous infection, or leprosy. He had never suffered from a virus disease and the blood culture was negative. The urine contained calcium oxalate crystals.

The bulbar conjunctiva in the palpebral fissure showed vascular congestion extending from the limbus posteriorly towards the equator for 10 mm. At first the temporal side was involved and then the nasal. These areas of vascular congestion became more numerous and coalesced all round the limbus which on June 30th, 1933, showed a tiny ring of pale yellow discolouration just internal to it and exactly opposite and confined to the area of peri-limbal

congestion, but unlike arcus senilis in that there was no clear ring of cornea between it and the limbus.

As time went on with each exacerbation of the limbal congestion there was an increase of the pale yellow area in the cornea, whose

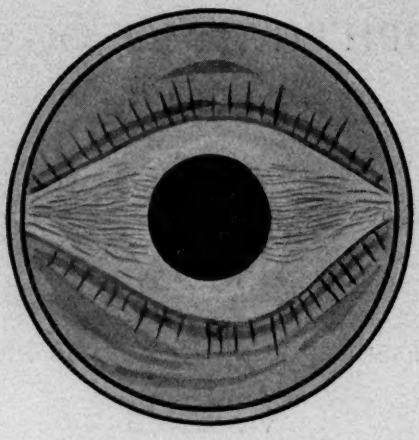

FIG. 1.

Left eye showing vascular congestion of bulbar conjunctiva in the inter-palpebral zone

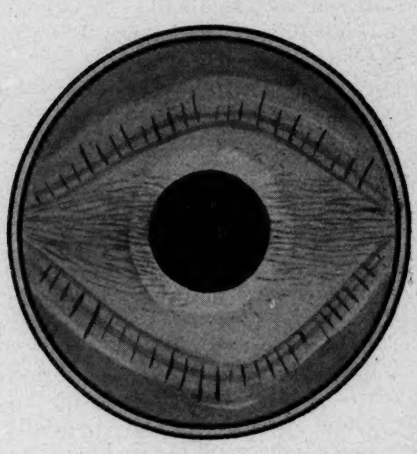

FIG. 2.

Corneal opacities beginning at the limbus on the nasal and temporal sides

appearance seen through a corneal loupe was similar to what one sees in a cloudbank in the sky. The increase was not only in extent but also in thickness.

From October, 1931 to November 1935 the condition progressed in the left eye in the manner indicated in the Figs. 1—6.

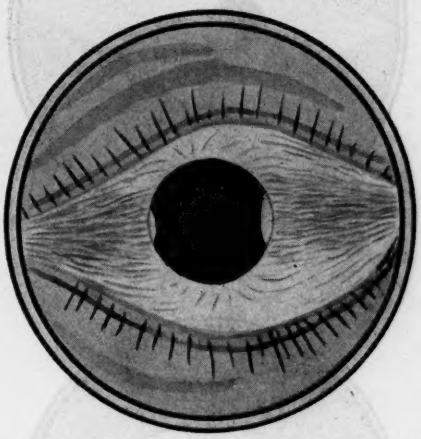

FIG. 3.

FIG. 4.

FIG. 5.

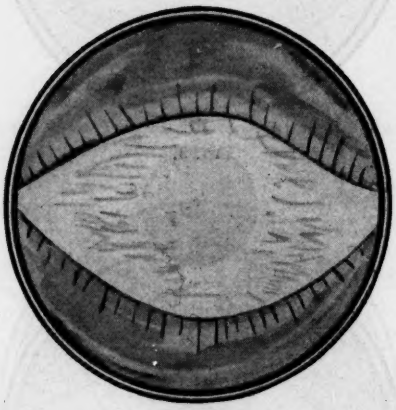

FIG. 6.

This was a type of congestion quite unlike that seen in iritis, iridocyclitis or glaucoma, and there was nothing about the appearance of the eye to suggest any inflammatory mischief. The congestion would last 24 to 48 hours and would then disappear, but recurrences were common, and my observations made me believe this was in some way connected with some metabolic disorder and particularly with renal function.

In view of the history of renal calculi I thought that what was likely to disturb the glomeruli in the kidneys was equally liable

to disturb the fine capillaries at the filtration angle of the eye, and so I put the patient on a diet free from calcium oxalate on the lines recommended by Sir John Thomson-Walker. I found that whenever there was an exacerbation of the congestion in the eyes calcium oxalate crystals were found in the urine. The change in the appearance of the cornea from the filtration angle towards the pupil

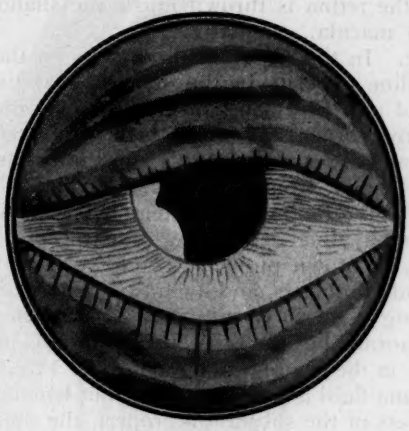

FIG. 7.

steadily increased and eventually involved the entire cornea (see Fig. 6). Fig. 7 shows the extent to which the right eye is affected. The trouble was symmetrical, a point in favour of my surmise that it was a metabolic disorder, but more extensive and severe in the left eye. He has received a number of local remedies prescribed by those whom he consulted elsewhere but without good effect. During the exacerbations I prescribed weak pilocarpine drops, and insisted further on the strict observation of the calcium oxalate free diet.

The attacks of secondary glaucoma occurred at least once a week associated with an attack of gout affecting the metatarsophalangeal joints in his feet. It was remarkable that these exacerbations occurred at the week-end and for some time the symptoms due to increased intra-ocular pressure were relieved by a single application of pilocarpine.

In November 1935 the left eye became blind and so painful that excision was necessary.

During the enucleation of the globe the bulbar conjunctiva and sub-conjunctival tissues were found extremely adherent to the sclera to about 0·5 to 0·75 in. from the limbus.

Pathological report by Mr. H. B. Stallard.—Globe divided horizontally. Fixed in formalin. Embedded in celloidin. Sections stained with haematoxylin and eosin, and van Gieson.

Macroscopic. (see Fig. 8). The cornea is greatly increased in thickness particularly in the centre. The anterior chamber is almost obliterated. Peripheral, anterior and posterior synechiae are present on the temporal side. The optic disc shows shallow cupping and the retina is thrown into some shallow folds in the region of the macula.

Microscopic. In the region of the limbus on the temporal side there are hyaline deposits in the subepithelial tissue and these extend forward into Bowman's membrane for 1 mm. or so at the periphery of the cornea. A single layer of flattened endothelial cells is present between Bowman's membrane and the corneal epithelium for 1 mm. from the limbus. In the subepithelial connective tissue at the limbus on the temporal side there are widely dilated vessels, hyaline deposits, granular cell débris, irregular shaped specks of brown pigment, clumps of lymphocytes, endothelial cells and fibroblasts, and hyaline degeneration of connective tissue extending posteriorly into Tenon's capsule. The corneal epithelium is normal but the substantia propria is much thickened, being 2·5 mm. in the centre of the cornea and 1·25 mm. at the periphery. Oedema fluid is present in the inter-lamellar spaces of the superficial layers of the substantia propria, the central and deeper layers of which are infiltrated and deranged by chronic inflammatory cells, newly formed blood vessels, fibroblasts and fibrous tissue formation. Except for one tear (probably an artefact) Descemet's membrane is intact, the endothelium on its posterior surface is adherent to the iris on the temporal side, the cells disappearing at points of close adhesion where it is flush with the anterior endothelial layer of the iris. On the nasal side the endothelial cells on the posterior surface of Descemet's membrane contain uveal pigment or have pigment deposits on them. On the nasal side the meshes of the ligamentum pectinatum have granules of pigment between them and on the temporal side the fibres and mesh-work are much compressed. The canal of Schlemm is patent on both sides.

The iris stroma is rich in chromatophores and a few lymphocytes are present. Anterior and peripheral synechiae are evident on the temporal side and posterior synechiae on both sides of the specimen.

On the anterior capsule of the lens there are deposits of pigment from the pars iridica retinae, a line of cleavage having occurred between these cells and the remainder of the iris at the site of a posterior synechia where the iris has become torn away from the lens capsule. The cortex and nucleus of the lens show irregularly shaped clefts representing punctate opacities.

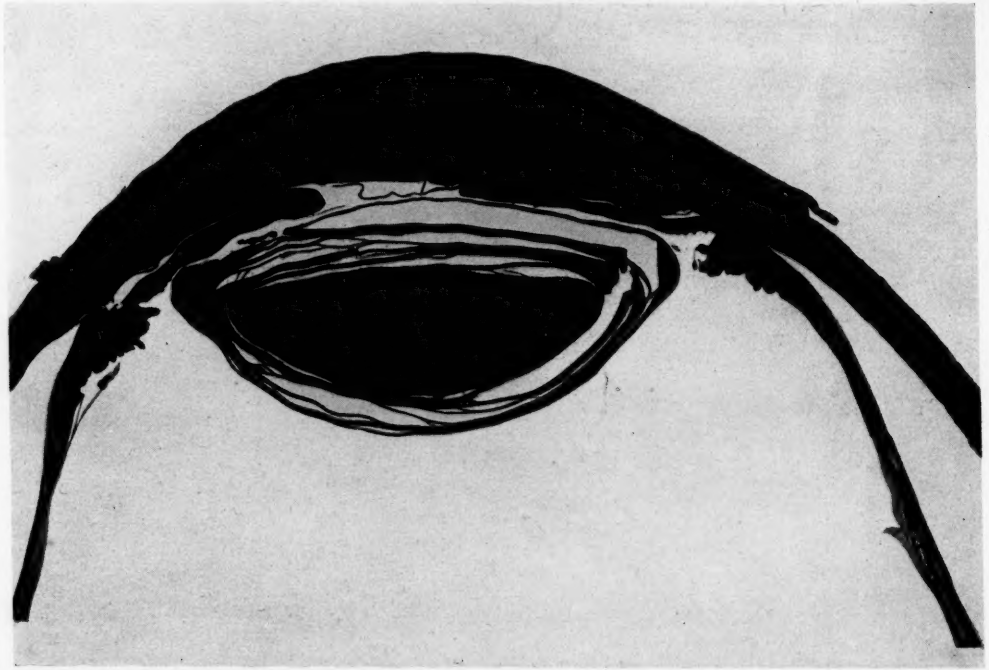

FIG. 8.
Low power view of anterior segment of globe (×9).

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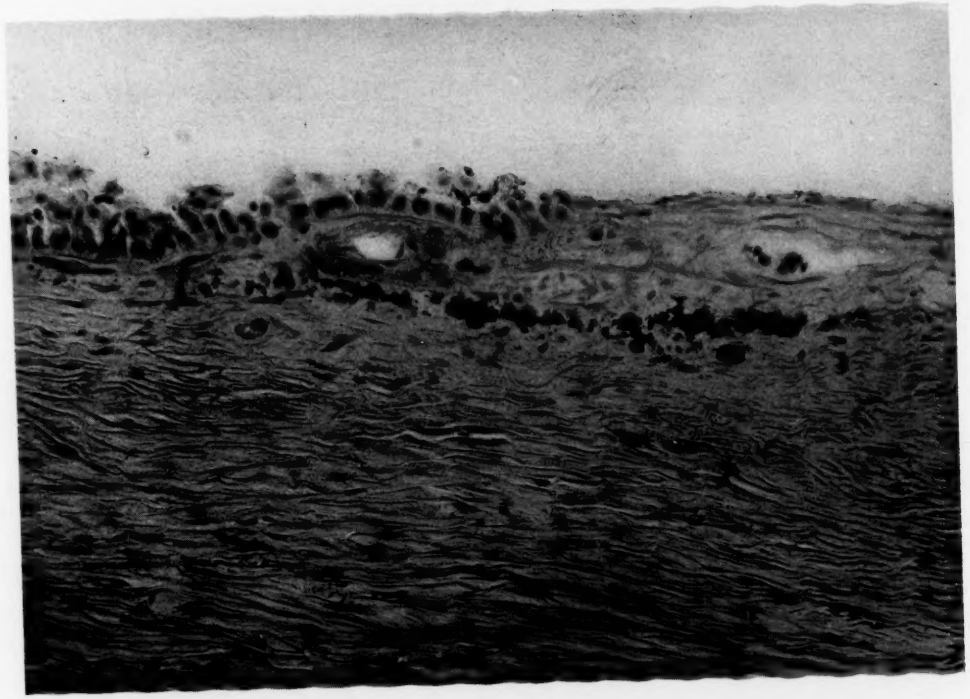

FIG. 9.
Micro-photograph at the limbus to show darkly staining hyaline deposits (× 300).

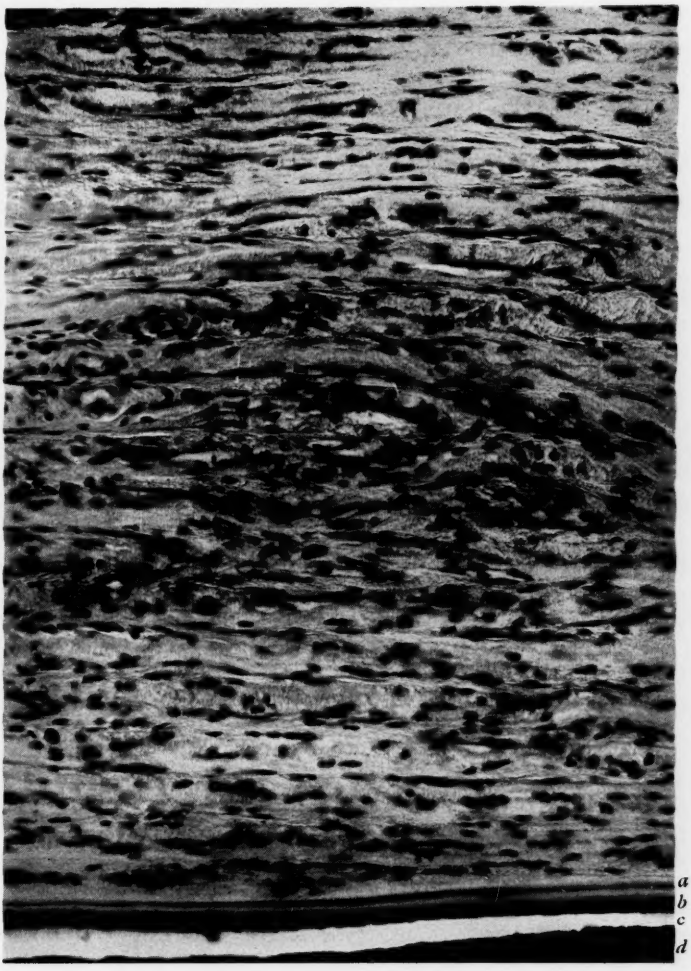

FIG. 10.

Micro-photograph of deeper layers of cornea infiltrated by chronic inflammatory cells (×300)

a. Descemet's membrane.
b. Endothelium.
c. Anterior chamber.
d. Iris.

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The retina shows atrophic changes in the ganglion cell and nerve fibre layers, and there is cystic degeneration at the ora serrata and periphery of the retina. The lamina cribrosa is displaced backwards.

Diagnosis.—Sclerosing keratitis profunda. Secondary glaucoma.

Commentary.—Pathologically the corneal lesion has predominant chronic inflammatory characters, such degenerative changes as are present are probably secondary to this.

GRANULOMA OF THE BULBAR SUBCONJUNCTIVAL TISSUE ARISING FROM AN IMBEDDED CILIUM

BY

F. W. G. SMITH

LONDON

WHILE reports on the presence of cilia in the interior of the eye are comparatively common a study of recent literature does not appear to disclose a case of the type described in this note.

History. The patient, a lady aged 66 years, complained of a localised swelling on the right eyeball which had been present for about six weeks and was gradually increasing in size. She volunteered the information that the swelling appeared to be quite hard on palpation through the lid and at times it was slightly tender. She had been under treatment for episcleritis for some weeks but the condition was showing no tendency to improve. The eye had been quite normal previous to the present complaint. Her own history and that of her family was quite satisfactory, she had one child. She had been engaged in the teaching profession for forty-five years.

I enquired very carefully into the history of the eye trouble but there was no suggestion of trauma (of this the patient was quite definite) nor of contact with caterpillars; one of the infective or possibly malignant conditions giving rise to what is shown in the painting was suspected to be the cause of her complaint.

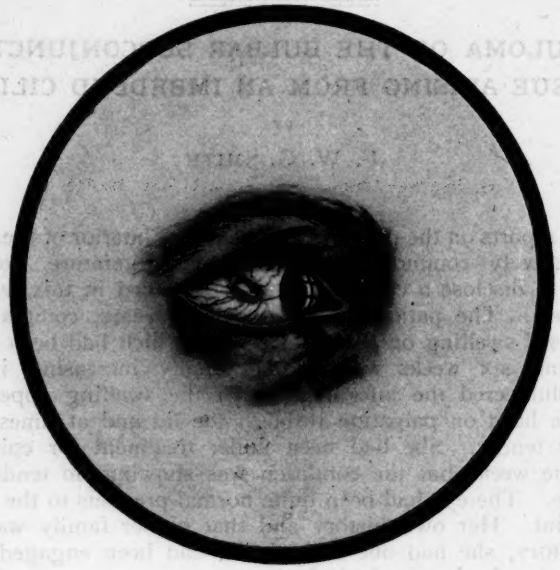
The vision was 6/6 and J.1 in each eye. Glasses were worn for reading only. The fundi appeared to be normal and there were no corneal precipitates or signs of iritis present.

An unpigmental mass of about 4 mm. by 1·5 mm. in height was present under the bulbar conjunctiva; it was situated about 4 mm. from the limbus on the outer side. There were five large vessels radiating from the growth, which appeared to be adherent to both the conjunctiva and the sclera and it was of a firm

consistency, solid and not cystic; part of the growth appeared to be slightly gelatinous but the remainder was opaque.

The pre-auricular gland was not enlarged. A search was made for similar foci in both eyes without result. The mass did not stain with fluorescein.

The growth was examined carefully with loupe and oblique illumination and in the semi-transparent part a curious appearance was noted which suggested that a body of a different refractive index to the gelatinous part was imbedded within it.



Search with a needle enabled a cilium to be removed with little difficulty; the cilium was of the same size and appearance as the patient's own but bleached at its extremity.

The whole condition rapidly subsided and there was little to be seen in a week's time. The painting was made after the removal of the cilium and shows rather more injection round the growth and a smaller mass than was present when the case was seen originally.

Subsequently the patient volunteered the following explanation as to how the condition might have occurred. About seven weeks previously, while sitting in front of a coke fire in an open grate, she heard a slight explosion from the fire and felt a stinging

in her right eye; she considers now that it was from that time that her eye began to give her trouble and the suggestion put forward was that moisture in a piece of coke caused the explosion which drove a small piece of coke with an eyelash through the conjunctiva.

J. Stewart Barrie[1] has reported a case where bristles worked their way under the conjunctiva causing swellings in a man employed in a brush factory. The swellings subsided when the man ceased to be engaged in this particular form of work.

A. MacRae[2] has described a case of subconjunctival granulomata, which were not adherent to the sclera. In these the pathological report showed chronic granulation tissue but further examinations apparently did not elucidate their causation with certainty.

Localised abscesses of the sclera would seem to be a more generally recognised condition recently; Beigelman[3] in a study of scleral cysts states that their origin is traumatic in the majority of case; the conjunctiva is usually freely movable over these cysts.

Würdemann[4] notes that hayseeds or husks can remain for some time in the conjunctiva without causing irritation and in another instance he quotes Schwartz who says that cilia and other foreign bodies may be carried into wounds quite frequently but that it is rare for them to remain inert. Praun is quoted, also, who showed that foreign bodies in the sclera occur about two hundred times less frequently than in the cornea.

Scleral foreign bodies were usually the result of explosions. Würdemann states that intra-ocular cilia eventually give rise to trouble and he advises early removal, an opinion which would not appear to be entirely unanimous.

The case described in this note emphasises the fact that epibulbar growths merit careful examination with the slit-lamp. In some cases complete excision with the object of removing any contained foreign body would appear to be worth consideration: this might be done instead of removing a portion only for a pathological report on the growth. Such treatment is suggested by Neame[5] in cases of early conjunctival tuberculosis.

Telangiectatic granulomata affecting the conjunctiva have been very fully reviewed by Hagedoorn[6] comparatively recently.

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A VISIT TO AN OPHTHALMIC CLINIC IN VIENNA

BY

S. M. TYRRELL

LONDON

THE first impression that one has in the Viennese clinics is the extraordinarily warm welcome that is extended by all the staff to foreign visitors. The professors welcomed one with open arms, and asked after old English acquaintances.

I visited the clinic of Professor Meller, where I was received by Dr. Joseph Urbanek, the Assistant Professor, who spent the first morning introducing me to his Tuberculin injection clinic. We were shown 187 patients, suffering from various diseases of the lids, conjunctiva, cornea, and uveal tract, all of whom received 1c.c. of Tebeprotein, which Dr. Urbanek uses almost exclusively. Most of these diseases were those which in this country we are inclined to attribute to a hidden septic focus such as the teeth; and it was interesting to hear that Dr. Urbanek thinks that the teeth have nothing to do with these eye conditions; while we were very interested to note that at any rate 80 out of the last 135 patients who attended on that morning had one or more gold-crowned teeth in their mouths.

The other point that impressed was that the cases of phlyctenular keratitis and conjunctivitis were nearly all adults. Only 3 children, were seen out of about 35 in all. On the other hand we were shown X-rays of the chest of all these children, and all had areas of disease, apparently active, at one or other apex.

The next morning we saw Professor Meller operate on three cataracts. He operates from the patient's right, in the usual continental manner, and performs a combined extraction. In one case of secondary cataract, he performed a division of the posterior synechiae with two blunt-pointed knives with edges on opposite sides of the blade, one for each side of the pupil. He then performed an intracapsular extraction of the lens, which left a good clear pupil. He only performs intracapsular extractions in these cases. The younger surgeons perform them in every case now.

In acute glaucoma a Graefe iridectomy is done, though no attempt is made to secure a broad iridectomy, as is usually done here, because Meller claims that the results are better with the narrow but complete iridectomy, and says that the broad one in his hands is more liable to lead to damage to the lens. In chronic glaucoma an iridodialysis alone is performed. Meller detests trephine and iridencleisis more than any other operations in the calendar.

The most interesting demonstration I witnessed was a "parade" of Dr. Urbanek's last 70 detachment cases, with an 80 per cent. immediate cure rate and a 60 per cent. one year cure rate. This is higher than most figures obtained in this country, and is certainly not a fiction, as I examined all the cases myself, good and bad results. Dr. Urbanek uses the electrolysis method, with direct current, using the cathode and watching by direct ophthalmoscopy for the plume of gas bubbles to see if he is near the hole. He claims that this method obviates the necessity of localising the hole so accurately, and also reduces the amount of burning round an area of electrolysis. This gives a prettier fundus picture after, as well as giving better adhesion of the retina.

It is important to pierce all the coats of the eye with the needle and to see the needle in the eye by direct ophthalmoscopy. If Dr. Urbanek is not satisfied with the degree of burning obtained by electrolysis, he also covers the area lightly with the Larsen ball electrode, using diathermy coagulating current. This had been done in about half the cases shown, but one would imagine that as the surgeon grew more familiar with the method there would be less need for this. One waits for twenty minutes or so after the electrolysis has been completed to allow the sub-retinal fluid to escape and to allow the retina to settle back and then re-examines the retina to see whether the degree of burning is satisfactory or not.

Among these cases were two who had had detached retinae for four years, and both had now been cured, one with 6/18 for 9 months, the other with 6/24 for 12 months.

Their other technique is similar to ours as far as operations are concerned, but they have many unusual and apparently not very successful treatments for what we consider the hopeless eye diseases. I saw a clinic of about a dozen cases of retinitis pigmentosa, which were being treated by massive doses of ovarian hormone. It was said that the males did better than the females on this treatment, but one felt that the truth was that no impression was made on either sex, at any rate the fields showed no improvement, and the patients themselves grumbled just as much as ours do.

The wards of the eye clinics are housed in the old hospital founded by the Emperor Joseph II in 1874, and consequently have not the airiness nor the bed space of our eye hospitals, but they manage to carry out their treatment very well all the same. The operating theatre is likewise housed in a makeshift room, and is not so up-to-date as ours, but the lighting is good, and makes up to some extent for the other deficiencies. The theatre porter, an old patient, with one eye, is trained to prepare the eye for operation, and to assist at the operation; at the end he helps the patient carefully to his feet and escorts him back to bed.

To conclude, the most important thing to be learnt is, in the words

of Professor Meller, "There is no one way of treatment in medicine that is the best. It is for each to select the particular line of treatment that seems best to him and perfect himself in it, and he will then get as good results with that method as somebody else elsewhere is getting with his particular method."

CORRECTION OF PTOSIS BY TWO STRIPS OF FASCIA LATA

BY

J. A. MAGNUS

BIRMINGHAM

MANY operations have been designed for the correction of ptosis. To instance a few, there are Everbusch's operation, in which the levator palpebrae muscle is advanced; Hess's operation in which three sutures are employed; Motais' operation in which a narrow tongue of the superior rectus is attached to the upper border of the tarsus, and Derby's operation in which a hammock of the fascia lata is used to pull the upper lid upwards.

The great disadvantage common to all is the more or less total lagophthalmos with which the operator has to deal at the end of the operation, and therefore the necessity of protecting the cornea from ulceration. This, however, is avoided by the method described by Lexer of Munich in 1923.

Lexer employs two strips of fascia lata to pull the lid up in a manner similar to that in which Hess uses his sutures. The advantage of Lexer's technique is that a direct connection is made between the frontalis muscle and the lid margin by a tissue which can be left in place. This, in due course, will undergo a natural contraction and so emphasize the effect of the operation. Since this method is apparently not well known in this country, and since I have had some experience in this operation on the Continent as well as in England, it may be of service to outline briefly the main points:

I. Preparation: The day before the operation the eyebrow is shaved and its position delineated with silver nitrate stick. The skin of the thigh and face is prepared as for any other operation.

II. Operation:

(1) Two per cent. novocaine with adrenalin is used for local injection. The thigh below the great trochanter is incised for a distance of about 8 cms. and the fascia lata exposed. Two parallel incisions 2·5 cms. long are made in the fascia 6—8 mms. apart. The portion of the fascia is separated and transferred to a basin of

warm saline lotion. The fascial gap is closed with catgut and the skin sutured in the ordinary way.

(2) The graft is freed from fat and cut into two strips measuring 25 by 3 mms. Silk sutures are passed through each end, that for the lower being double armed.

(3) Two incisions 1 cm. long are made in the line of the eyebrow; the inner being at the junction of the inner and middle thirds, while the outer is between the middle and outer thirds. The

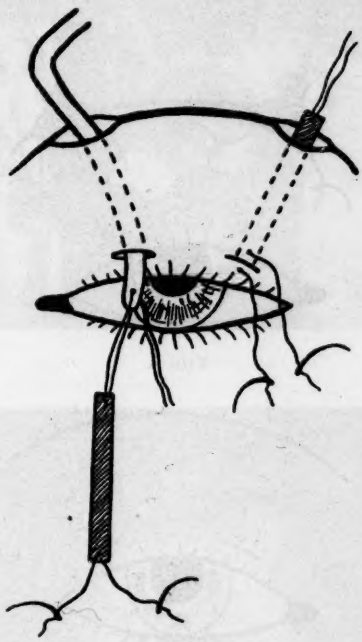

FIG. 1.

skin is undermined upwards with blunt scissors for 6—8 mms. to expose the frontalis. Two tunnels are now made between the skin and the orbicularis in a downward and converging direction towards the lid margin where a counter incision is made at about 3—4 mms. above the margin (Fig. 1).

(4) An aneurysm needle is passed from above downwards through this tunnel and threaded with the suture of the graft. The aneurysm needle is withdrawn with the strip, and the latter left in position (Fig. 1).

(5) The lower end of the graft is sutured to the margin of the skin wound, and the latter closed with the same suture (Fig. 1).

(6) The upper ends of the strips are pulled so that a palpebral furrow is formed and the margin of the lid brought to within 3 mms. of the upper margin of the cornea, with the eye in the primary position. The upper lid is retained in the desired position by stitching the strips with double armed catgut sutures to the lower end of the frontalis muscle (Fig. 2).

(7) The ends of the strips are then trimmed and the wound closed with silk sutures (Fig. 3).

FIG. 2.

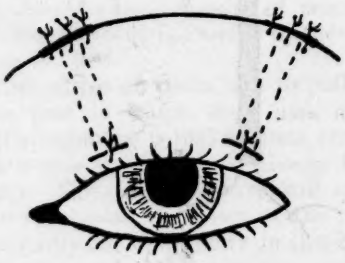

FIG. 3.

It is important to see that the upper lid is not pulled up too high. I usually find it sufficient if the lid margin is on a level with the upper fifth of the pupil (taking the average pupil as 6 mms. in diameter) and never above it, since as the strips contract, there is a further shortening effect of at least 1 mm.; but it is not produced for 2—3 weeks. Should the upper limbus have been exposed in the first instance, overcorrection with its dangers of exposure to the cornea will result.

It is not necessary to take special precautions for the protection of the cornea, as it is moistened by blinking and fully covered when

the eye is closed. During sleep there is a gap of about 1—2 mms. between the lids through which the sclera can be seen, but the cornea is completely protected, as the eyeball is rotated upwards.

It will be found by the end of 4—6 weeks that the upper lid margin is within 2 mms. of the limbus above. The patient is able

FIG. 4

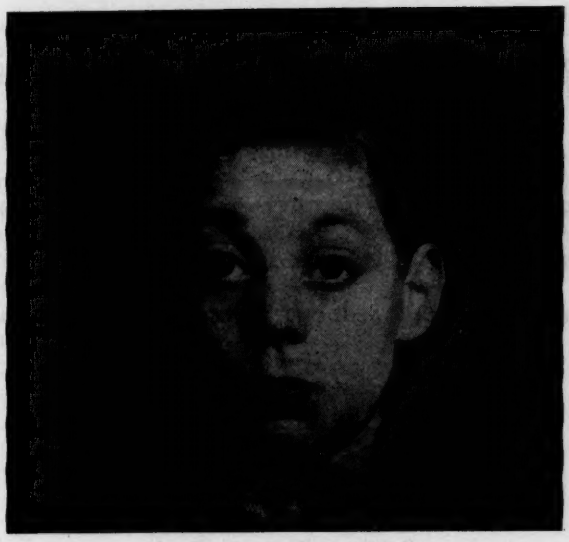

FIG. 5

to move his upper lid with the help of the frontalis and there is a slight palpebral furrow due to the pulling of the strips. The upper scars cannot be seen, as they are covered by the eyebrow, while the lower, near the lid margin, disappear in the palpebral furrow.

I have successfully used this operation, also, in those cases where the levator was not completely paralysed, and have found this easier than the advancement of that muscle.

Full surgical asepsis is of particular importance as any infection will vitiate the result.

In conclusion, I have to thank Mr. Alabaster for the use of his clinical material (Fig. 4, 5).

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A MODIFICATION IN BIFOCALS

BY

F. A. WILLIAMSON-NOBLE

LONDON

THE commonest complaint of the wearer of bifocals is difficulty in going downstairs, stepping up curbs, etc.

This is due, not so much to the different power in the reading portion as to its centering. In the ordinary bifocal glasses the centres

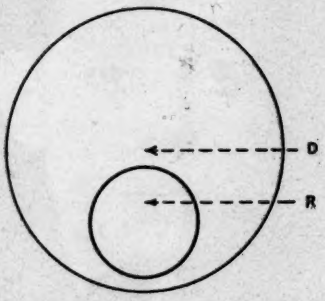

FIG. 1

Ordinary solid ground bifocal.

are arranged as in Fig. 1, with the result that when the eye is lowered from the distance to the reading portion, objects appear to be displaced upwards. The amount increases with the difference in the strength between the distance and reading corrections.

By incorporating a prism base up of suitable strength in the reading portion of the bifocal lens, this jump can be entirely

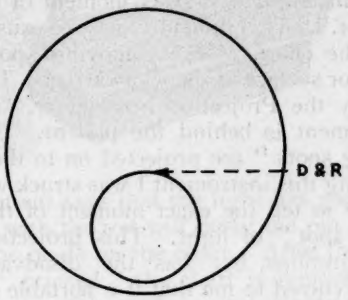

FIG. 2

Bifocal lens corrected for displacement in lower segment.
D = distance optical centre.
R = reading optical centre.

eliminated, in which case the centres of the two parts can be made to coincide at the dividing line as shown in Fig. 2.

Glasses such as these produce no apparent movement of the object when the wearer looks down, and consequently abolish the difficulty of going downstairs.

The reading segments are a little more conspicuous than in the ordinary invisible variety, but this defect is more than compensated for by the absence of apparent movement of objects on looking down.

I have to thank Messrs. Keeler for their kind co-operation in producing these lenses. It is suggested that they might be designated "Apedesic" (*ἀ* privitive, *πήδησις* leaping.)

Since this paper was written I find that a similar lens has already been made by another firm.

A PORTABLE SCOTOMETER

BY

J. P. SPENCER WALKER

HOVE

IN charting a scotoma we have all noticed that some patients have a difficulty in telling the exact moment of disappearance of the " moving spot." This difficulty may be caused by an uneven illumination of the chart, of the " moving spot " itself, or by reflecting points or surface of the spot-carrier. This difficulty has been overcome by the Projection Scotometer. In such a scotometer, the instrument is behind the patient. Both the fixation and the " moving spots " are projected on to the wall facing the patient. On trying this instrument I was struck with the ease with which I was able to tell the exact moment of the disappearance of the " moving spot " of light. This projection scotometer is excellent for Institutions, but has the disadvantage of lack of portability. It occurred to me that if a portable scotometer could be devised, using a " moving spot " of light over a matt black surface, it would be of great use, not only in the consulting room, but also in those cases which have to be examined in the patient's house.

A scotometer has been made for me by Messrs. Rayner. This instrument folds into its case, in which there is room for spare charts, and there are no loose parts, except the rod carrying the " moving spots," which may be clipped into the lid. The instrument is provided with an adjustable chin-rest, and a chart-holder in the centre of which there is a small hole, and behind this hole is a small bulb lit by a pocket battery. This point of light is the fixation spot. The charts are printed in the usual manner, but have a matt black surface on the reverse side. There is also a small central hole. The chart is inserted with the black surface facing the patient, and its central hole coinciding with the hole in the chart. The " moving spot " of light is obtained by a rod, on the tip of which, is a small hole. This hole is illuminated by a pocket battery in the rod handle. The rod is furnished with a rotating disc of coloured glasses, so that the colour of the spot can be turned from white to red or green etc., as desired. Immediately behind the hole is a pin point with a spring guard, and below it is a square block of metal. The rod is placed over the chart with the square block touching it. It is then moved over the chart in the desired position, keeping the block in contact with the chart all the time. This is most important, as if the block is not in contact, an inaccurate charting will be obtained.

As soon as the patient says that the light has gone, a slight pressure on the chart with the rod will bring the pin point into action and a prick will be made on the chart. After the scotometer has been adequately " pricked " the chart is removed and reversed. A line is then drawn in the usual manner joining the pin pricks.

The advantages of this method of charting are that the patient's attention is not diverted by any shining points on the surface of the carrier of the " moving spot " nor by the operator's hand. Also it avoids the difficulty of even illumination of the chart itself. The chart having a matt black surfare presented to the patient conceals the moving rod sufficiently to concentrate his attention on the spot of light. The instrument works well in a subdued light and a completely dark room is unnecessary. The bulbs and battery are of the ordinary pocket torch type. The eye that is not being examined may be totally occluded, or a trial frame may be used with a stenopaeic disc of small aperture allowing this eye to see the fixation spot only. The use of a stenopaeic disc allows both eyes to fix on the central spot, and so has many advantages.

I have used this scotometer for about eighteen months and have found it successful.

ANNOTATION

Post-operative Delirium

Among the rarer sequelae of ophthalmic operations may occur post-operative delirium. As a rule, in the aged, this is of low degree and does not go much beyond muttering and picking

at the bedclothes. The irksomeness of lying still in bed in one position is very real and doubtless accounts for such a complication after an operation for senile cataract. In contrast we may rarely find much more acute cases of delirium, which, in a heavy drinker, may easily amount to delirium tremens. Such a catastrophe is more likely to occur in a case where there has been an emergency operation for acute glaucoma or eye injury. It is not perhaps so common as in cases of fracture, but it can occur. Such cases are very difficult to manage. The eye may easily suffer damage during such an attack, and special nurses, night and day, are essential; together with shackles for the hands, if mischief is to be avoided. The treatment of the delirium may be attempted by numerous drugs. An old teacher of the writer's used to draw gloomy pictures of the effects of the morphia syringe in such cases, and adjure us to pin our faith to full doses of bromides in good stout.

Paraldehyde will probably subdue the condition as quickly as anything; and one of the most important points in treatment is to induce sleep at almost any cost.

If all else fails we may remember the story told by Dean Ramsay in his " Reminiscences of Scottish Life and Character," where a nobleman was very ill and unable to sleep. His physicians were in perplexity as they considered that, unless sleep could be obtained, there was little chance of recovery. The son of the house, who had always been considered a little *daft* was within hearing of the consultation and suddenly called out " Sen' for that preachin' man frae Livingstone, for faither aye sleeps in the kirk." This advice was acted on with excellent results!

ABSTRACTS

MISCELLANEOUS

(1) **Nixon, J. A. (Bristol).—Bristol Eye Hospital.** *The Bristol Medico-Chirurgical Journal*, Vol. LIII, April, 1936.

(1) As is well known Bristol stands third in order of foundation among the English eye hospitals. It was founded in 1810, and is only preceded by Moorfields, 1804, and Exeter, 1808.

W. H. Goldwyer, of a well known Bristol medical family, was the prime mover of the foundation, which met with such success

that at the end of the first year more than 2,000 patients had been treated

The Duke of Gloucester was nominated as first patron, and was succeeded by his Duchess in 1817, and by the Duke of Beaufort in 1858.

For many years the work was carried on in Lower Maudlin Street, next the Blind Asylum.

The present high position of the hospital is due to the late Richardson Cross, who was elected Surgeon in 1882. His interest in the hospital was one of the main features of his life.

As time went by extensions became necessary to allow of coping with the work, and recently the entire hospital has been rebuilt. The foundation stone was laid on November 27, 1933, and the building was opened by the Duchess of Beaufort on October 21, 1935.

The paper is illustrated by a picture of the new hospital and by the reproduction of a silhouette of Mr. W. H. Goldwyer.

R. R. J.

(2) **Courville, C. E. (Los Angeles).—Multiple primary tumours of the brain.** *Amer. Jl. of Cancer*, April, 1936.

(2) **Courville** here presents a long paper containing accounts of 21 cases of multiple gliomata with a review of the literature upon 113 cases of what appear to be *bona fide* instances of this condition. A good proportion of the author's own cases showed a bilateral papilloedema and the paper is illustrated by diagrams of the brain showing the sites of the tumours. His summary and conclusions are as follow:

"1. Almost every variety and combination of multiple intracranial tumours occurs. In most cases, the occurrence of tumours arising from two separate tissues is largely a matter of chance. On the other hand, a number of cases of multiple tumours of the meninges (meningiomas), of the nerve roots (central neurofibromatosis), and of the brain (gliomas) have been reported suggesting some predisposition to the formation of multiple tumours.

2. The incidence of multiple gliomas in a series of autopsies is about one and one-half to a thousand. They constitute 4·3 per cent. of intracranial tumours in general and in the author's series about 8 per cent. of gliomas. About 10 per cent. of multiform glioblastomas are multiple while only 6 per cent. of astrocytomas coming to autopsy are multiple.

3. In most cases the cerebral hemispheres were the seat of the multiple tumours. These may be grouped into three classes: (1) that in which both hemispheres are the seat of the tumours,

symmetrical regions being affected in about half the cases; (2) that in which the corpus callosum and one hemisphere are affected; (3) that in which one hemisphere alone is affected. Multiple gliomas of the encephalic neuraxis, the ventricles, or the cerebellum are much more rare.

4. The individual tumours vary considerably in size, degree of invasiveness, and in the nature and degree of regressive changes. Tumours of different size may be present in a given case, suggesting either a difference in their degree of malignancy or in their time of genesis. Solid, haemorrhagic and cystic tumours may all be found in a single case.

5. In the majority of cases the tumours prove to be multiform glioblastomas. Multiple astrocytomas or other types are much more rare. In the author's series, multiple astrocytomas were found only in the cerebellum (vermis and lobe) and thalamus. It is possible that other types of gliomas may be multiple (ganglioglomas, etc.).

6. The development of multiple independent foci is the only logical explanation for widespread tumours. In the case of small satellite tumours about a larger growth, it is possible that the large tumour may " infect " or stimulate the development of the smaller foci (discontinuous growth). The distribution of the tumours and the arrangement of anatomical structures seem to exclude the possibility of metastases by way of either arterial or venous channels, the perivascular channels, or the cerebrospinal fluid."

A bibliography of 43 items concludes a valuable paper.

R. R. J.

(3) **Bhaduri, B. H. and Biswas, C. K. (Calcutta). — Retinal haemorrhage in epidemic dropsy.** *Calcutta Med. Jl.*, April, 1936.

(3) A number of cases of retinal haemorrhage in epidemic dropsy were reported last year by Bhaduri. His conclusions were shortly as folows:

The haemorrhages were usually in the superficial layers and in two of his cases subhyaloid haemorrhage was present. The haemorrhages were mainly at the posterior pole, in some cases on the disc and along the macular branches. The haemorrhage was usually from the smaller vessels. There was absence of serous exudation and marked venous congestion. The female sex preponderated. The intra-ocular tension was raised, but not to a high degree. The rate of absorption was on the whole rather rapid, but the subhyaloid cases took a long time to disappear, and no fresh recurrences were observed.

Bhaduri and **Biswas** now report four more cases. The first occurred in a boy of 18 years of age who showed a " D " shaped haemorrhage at the left macula. The intra-ocular pressure was 64 mm. Hg. (Schiötz) which in the course of six weeks came down to normal on treatment with miotics. The fundus took 3 months to clear up and vision of 6/6 resulted.

The second case was in a girl of 14 years, with subnormal intra-ocular tension. Her right eye showed two large patches of haemorrhage on the papillo-macular area.

The third case was in a man of 28 years, with normal intra-ocular tension and numerous haemorrhages in each eye.

The fourth case was in a married woman of 36 years of age, with normal intra-ocular tension and a few small haemorrhages in the right eye, and a very large area in the left covered by blood.

In her case the intra-ocular tension rose to a considerable height just as the retinal haemorrhage cleared. She refused operation.

The authors have recorded the case histories of these four patients in great detail.

Each of these patients was suffering at the time from some form or another of secondary anaemia. The first had kala-azar on admission. It is to be noted that the blood condition in no case had any deleterious action on the rate of absorption of the haemorrhages.

The paper forms an interesting study of a rare complication and is illustrated by a colour plate of the fundus of Case 1 and a chart showing the scotoma.

R. R. J.

(4) **Sallmann, L. (Vienna).—Retinal folds in lesions encroaching on the volume of the orbit. (Netzhautfältelung bei raumbeengeneden Prozessen in der Augenhöhle).** *Zeitschr. f. Augenheilk.*, Vol. LXXXVI, p. 18, 1935.

(4) **Sallmann** reports 3 cases of folds in the retina in cases in which the globe was compressed by lesions invading the orbit—a condition first described and studied anatomically by him.

In one case a mucocele of the frontal sinus led to a 10 mm. exophthalmos and the formation of retinal folds; the vision was reduced to hand movements. A second case was also due to the same cause; papilloedema was present. In the third case a pseudo-tumour of the orbit was the cause of the exophthalmos and retinal folding. Reviewing the 11 cases hitherto recorded, mucocele of the frontal sinus was found in 5 instances and malignant tumours in 3.

ARNOLD SORSBY.

(5) **Mamola and Bellina (Palermo).—New ideas on the pathogenesis and treatment of retinitis pigmentosa. (Nuove vedute sulla patogenesi e terapia della retinite pigmentosa).** *Rass. Ital. d'Ottal.*, November-December, 1935.

(5) **Mamola** and **Bellina** have examined their subjects in various ways with the aim of discovering whether the hypophysis was performing its functions normally; they have found in most cases evidence of abnormality. They have treated the patients by injecting the hormone of the anterior lobe intramuscularly and have found improvement follow. They think that their results point to the disease being due to some disturbance of the endocrine glands, and especially of the hypophysis.

HAROLD GRIMSDALE.

(6) **Richner, H. (Zürich).—Inheritance of retinal detachment. (Vererbung der Netzhautablösung).** *Arch. f. Ophthal.*, Vol. CXXXV, p. 49.

(6) **Richner** has collected the cases of familial or inherited detachment of the retina he found recorded in the literature, and tabulates a series of eighteen cases observed by Vogt.

The immediate cause of retinal detachment is to be found in senile and presenile (in axial myopia and senile with axial myopia) degenerative changes at the periphery of the retina and choroid, and in the production of these changes microscopic obliteration of vessels perhaps plays a part.

Senile degenerations are signs of heredity, and certain types of degeneration in the myopic fundus are familial in character and conform to the laws of heredity. If the senile and presenile changes are inherited, it is also possible that the conditions arising from such changes are hereditary.

From an examination of these collected cases the author concludes that the inheritance of retinal detachment can only be indirect, in so far as the degenerative changes in the periphery of the retina and choroid under certain conditions predispose to retinal detachment, but do not necessarily cause it. This indirect inheritance explains the relative infrequency of inherited spontaneous amotio retinae, whereas the predisposing factors, cystoid peripheral degeneration of the retina, choroidal atrophy in myopia of more advanced years and also in old age with emmetropia and hypermetropia, are of very much more frequent occurrence.

The vitreous probably plays a much less important rôle in the aetiology of retinal detachment than has hitherto been ascribed to it.

THOS. SNOWBALL.

(7) **Kugelberg, I. (Upsala).—The fundus oculi in infra-red light. (Der Augenhintergrund in infrarotem Licht).** *Acta Ophthal.*, Vol. XII, p. 179, 1934-5.

(7) **Kugelberg** discusses the application of infra-red photography of the fundi through opalescent media. Though theoretically the penetrating rays should prove valuable within limitations, in practice it is so difficult to obtain clearly defined photographs of fundus lesions, that the method has no place in clinical ophthalmology.

ARNOLD SORSBY.

(8) **Pillat, A. (Vienna).—Fundus findings in lupus erythematosus. (Fundusbefunde bei Lupus erythematosus).**

Bergmeister, R.—Note on Dr. Pillat's lecture. (Zu Dr. Pillats Vortrag). *Zeitschr. f. Augenheilk.*, Vol. LXXXVI, pp. 72 and 224, 1935.

(8) **Pillat** reports that in 48 cases of lupus erythematosus, a careful exploration of the fundi revealed lesions in 16 eyes. The changes led to no visual disturbances and were mostly situated towards the periphery. In 14 of the 16 cases the appearances were those of old scars, in two those of fresh choroiditis—both groups being indistinguishable from tuberculous choroiditis.

Bergmeister recalls a case of miliary tubercles in the retina in a patient with lupus erythematosus who died from tuberculous septicaemia.

ARNOLD SORSBY.

(9) **Boros, B (Pecs).—The aetiology of optic neuritis of unknown origin. (Zur Frage der Aetiologie der Sehnervenentzündung unbekannten Ursprungs).** *Zeitschr. f. Augenheilk.*, Vol. LXXXVI, p. 213, 1935.

(9) **Boros** reports that in 29 per cent. of cases of optic neuritis no aetiological factor can be established. He undertook control examination in his cases after 2-3 years, but could only trace five. Of these, four now showed definite signs of disseminated sclerosis.

ARNOLD SORSBY.

(10) **Seefelder, R. (Innsbruck).—Familial incidence of cataract and poikilodermia. (Ueber familiares Auftreten von Kataract und Poikilodermie [Poikilodermia vascularis atrophicans Jakobi]).** *Zeitschr. f. Augenheilk.*, Vol. LXXXVI, p. 81, 1935.

(10) **Seefelder** adds another family tree to those reported as showing the association of cataract with poikilodermia. [Ophthalmoscopic changes were reported by Grönblad in 1933: *Acta Ophthal.*, Vol. XI, p. 461].

The association of cataract with skin disease was first described by Rothmund in 1868 and recently the subject was reviewed by Kubelberg [Abstract in this Journal, Vol. XIX, p. 222, 1935].

In Seefelder's family the grandparents were consanguineous; two of the affected children showed both the lens and the skin lesion, one the skin affection alone. The after history of Rothmund's original family is given and it appears that such of the patients as had both the skin and the eye lesion were sterile. Undescended, hypoplastic testes were present in the affected boy in Seefelder's family.

ARNOLD SORSBY.

(11) **Yudkin, Arthur M. and Arnold, Caroline H. (New Haven, Conn.)—Cataracts produced in albino rats on a ration containing a high proportion of lactose or galactose.** *Arch. of Ophthal.*, December, 1935.

(11) Within the compass of a few pages **Yudkin** and **Arnold** give an admirable survey of " the present highly speculative status of the etiology of cataract." Cataract has been produced in experimental animals in various ways, *e.g.*, by administration of naphthalene or thallium, or by removal of the pancreas or the parathyroid. The lesion can also be produced by nutritional methods, *e.g.*, by a diet low in tryptophane or low in vitamin G content or by one containing an excess of lactose or galactose. The latter sugar was found to be the more efficient, amounts as small as 25 per cent. of the total diet being sufficient to produce cataract in 14-21 days. The opacity began in the nucleus in young albino rats and in the cortex in older animals. With lactose, the proportion required is 70 per cent. and the opacities do not appear until the 70th-94th day. There are several possible modes of action of galactose. 1. Through disturbances of calcium metabolism, by mobilising the calcium content of the body, the amount of calcium in the urine increases at the expense of the faecal calcium. 2. By the direct toxic effect on the lens of galactose in the aqueous. The relationship between lack of calcium is evident in diseases such as tetany and hypoparathyroidism, it is also supported by the work of Bourne and Campbell who found it impossible to produce naphthalene cataract in rabbits when the blood calcium was kept at a high level by the ingestion of food such as cabbage.

Against this is the observation that cataractous lenses contain an excess of calcium, but this can probably be explained as the normal response of the body to injury of tissue, calcium infiltration being a well-known pathological change in other parts of the body.

At the present time however there is little evidence to show

that disturbance of calcium metabolism is the direct cause of cataract. Thus Bourne and Campbell showed that naphthalene is detoxicated in the rabbit partly by combining with cysteine and an amino acid which is essential for the oxygenation of the lens while Goldman and Weinstein suggest that the cataracts of tetany are due to the formation in the blood of guanidine, histamine and tyramine during the spasms, and their subsequent migration to the aqueous where they penetrate the capsule and cause opacification of the cortical lens fibres. On this theory, galactose would act by decreasing the calcium in the alimentary canal and so depriving the intestinal tract of a good detoxicating substance. With regard to the direct action, Kirby and co-workers have found that with tissue cultures of the lens, galactose is toxic to lens tissue in much lower concentrations than either dextrose or fructose.

F. A. W-N.

(12) **Chini and Silvagni (Rome).—Two cases of Parinaud's syndrome. (Alcune considerazioni su due casi del sindrome di Parinaud).** *Rev. Oto.-Neuro.-Oftal.*, July-August, 1935.

(12) **Chini and Silvagni** discuss two cases of Parinaud's syndrome which have come under their notice. Neither case was straightforward. Each was complicated by other symptoms which made their interpretation difficult. Both men had suffered from syphilis; in the one case this had been treated efficiently and seemed to have no connection with the present disorder; in the second there was positive evidence of active disease, and the authors consider it probable that the syndrome was due to syphilitic disease of the vessels of the mid-brain.

In the first case they conclude that there was a process of gliosis attacking the mid-brain.

HAROLD GRIMSDALE.

(13) **Rohrschneider, W. (Greifswald). — The spring-peak of scrofulous eye disease. (Ueber den Frühjahrsgipfel der skrophulösen Augenerkrankungen).** *Zeitschr. f. Augenheilk.*, Vol. LXXXVI, p. 281, 1935.

(13) **Rohrschneider** drawing on the published results as to the seasonal variation in the incidence of scrofulous eye disease in Palermo, Graz, Greifswald and Selsingfors shows that in the four centres the height of incidence corresponds with a solar position of 45 degrees above the horizon at midday—which is for the four places and ranges between February and May. The association of phlyctenular disease and solar radiation is held as proved. In view of the fact that the peak of incidence is reached before the

peak in ultra-violet radiation, Rohrschneider believes that irritation from sunlight is not the cause. He is inclined to blame the poverty in sunlight during the months preceding.

ARNOLD SORSBY.

(14) **Vail, D. (Cincinnati).—Epithelial downgrowth into the anterior chamber following cataract extraction arrested by radium treatment.** *Trans. Amer. Ophthal. Soc.*, Vol. XXXIII, p. 306, 1935.

(14) **Vail** discusses the nature of epithelial downgrowth, its clinical recognition and a rational plan of treatment.

Epithelial downgrowth is associated with slowly healing wounds which may remain open for a certain length of time and contain incarcerated iris, lens capsule or vitreous, circumstances which are well adapted to the growth and spread of epithelium. Epithelium proliferates more readily along smooth surfaces and hypotony favours this. An anterior chamber which is not completely reformed and contains aqueous rich in proteins affords a good medium for epithelial cell growth.

In some cases the growth of epithelial cells is rapid, Meller describes a case in which extensive growth occurred in 4 days, or it may be slow and take 4-10 years.

Proliferation progresses as long as the wound is open and ceases when it is closed. Custodis noted that rapid proliferation of epithelial cells followed the attempted removal of an implantation cyst by paracentesis.

Histological studies show that the innermost cells are cylindrical or cubical and the outermost flat or elongated.

The cyst wall may be 5-6 layers of cells thick, many of the cells are in some cases ill formed. Swollen mucoid cells and degenerated cells, cells with a large amount of cytoplasm and a small nucleus, karyokinetic figures and epithelial cells smaller than corneal cells with darkly staining nuclei have been described. The epithelium may extend to the posterior surface of the iris and lens.

The author discusses the value of X-ray and radium therapy. He quotes 9 cases from the literature 7 of which were successfully treated by irradiation, the depth penetration of 150 per cent. H.E.D. (skin erythema dose) was determined by means of the absorption curve in water using a Wulf's single thread electrometer and a large ionization chamber. He comments that operative treatment does no good but causes a " flare up " with increased epithelial growth. The application of the actual cautery to the wound is reported in one case in the literature to have prevented recurrence of epithelial growth probably through irradiation of thermal energy.

H. B. STALLARD.

(15) **Castresana, A. (Madrid). — Congenital anomalies of the sclerotic. (Anomalias congenitas de la esclerotica.** *Rev. Cubana de Oto.-Neuro.-Oftal.*, Vol. IV, p. 112, September-December, 1935.

(15) **Castresana** says that congenital pigmentation of the sclerotic in a mild degree is often observed. It can be seen with the slit-lamp in the region of the ciliary vessels and as they enter the globe. Melanosis of the sclerotic has been carefully studied by many authors and it is thought to be of little danger to the patient as malignant changes very rarely occur.

There is the condition of the " blue sclerotic " due to thinning of the sclera and choroidal pigment showing through, accompanied by " fragilitas ossium " and also occasionally by deafness. Colden has recently observed a disseminated choroiditis in some of these cases. The condition is usually familial and is associated with an abnormal calcium metabolism.

A rare phenomenon is keratoconus, but the cornea is often thinned as well as the sclera, Bowman's membrane being much thinner than normal.

Excessive myopia has been noted by various authorities and occasionally a staphyloma. Other general bony changes have been seen such as malformation of the maxilla, modification of the bones of the skull and scoliosis. Dislocations may be due to lax ligaments, the teeth are usually carious and may be malformed. Other complications may be a low arterial tension, infantilism, syndactyly and haemophilia. The transmission of the disease may be by either parent, and either sex may be affected. Many causes of this disease have been put forward, for example syphilis, endocrine changes, etc. Eddowes considers the condition is due to a lack of fibrous tissue caused by a deficiency in the mesenchyme; abnormal development of the mesenchyme is also quoted by other authorities.

Ultra-violet light has been given for the general condition, calcium injections sometimes combined with vitamins, and also glandular treatment, and where necessary anti-specific treatment.

E. E. CASS.

(16) **Gallino, J. A. (Buenos Aires).—Teleangiectasis of the iris. (Rubeosis iridica).** *Arch. de Oftal. de Buenos Aires*, Vol. XI, p. 40, 1936.

(16) **Gallino** describes a case of a rare ocular condition first mentioned in 1928 by Salus. The case was that of a man, aged 64 years, who for 4 years had suffered from diabetes, and was being treated with insulin. In the right eye the iris was normal.

lens and vitreous were clear, but there was diabetic retinitis. In the left eye there were many posterior synechiae and the lens was opaque. The tension measured with a Schiötz tonometer was 40 mm. Hg; the iris was very vascular, and contained numerous branching capillaries, all originating from a capillary at 5 o'clock; these capillaries encircled the pupil, but did not pass its pigmented border; the pressure in these capillaries was 130 mm. Hg when measured by the ophthalmodynanometer of Bailliart.

Salus described three similar cases, all diabetic and all ending in glaucoma; in all these cases this " reddening of the iris " was previous to the glaucoma. A similar condition of telangiectasis has been found in the skin of some diabetics.

This condition in the eye is due to an alteration in the capillaries, caused by diabetes. Arruga and Waldstein have also described cases.

The differential diagnosis is from an iritis or irido-cyclitis, but the new-formed vessels in an old inflammatory process are different and are accompanied by atrophic changes in the iris and destruction of the pigment cells.

E. E. CASS.

(17) **Ask, O. (Upsala).—Carcinomatous metastases in the uvea. (Zur Kentniss des metastatischen Uvealkarzinoms).** *Acta Ophthal.*, Vol. XII, p. 308, 1934-35.

(17) **Ask** in reporting on a case of bronchial carcinoma with metastatic deposits in the choroid, gives an exhaustive survey of the literature. Drawing on 204 cases, he shows statistically that carcinoma of breast, bronchi, lungs and possibly prostate comparatively often give uveal metastases, whilst cancer of the stomach, uterus, ovaries and possibly of the skin rarely do so. On other forms of cancer no definite conclusions can as yet be reached. He holds that the explanation lies with the route of spread rather than with an assumption of a special affinity of the uveal tissue for some form of cancer.

ARNOLD SORSBY.

(18) **Cavallacci, Gullio (Pisa).—Congenital pigmentation (Melanosis) of the eye. L'iperpigmentazione (melanosi) oculare congenita).** *Arch. di Ottal.*, Vol. XLII, p. 475, December, 1935.

(18) **Cavallacci** discusses the variations in colour in the sclera due to conditions such as buphthalmos, myopia, etc., when the sclera is stretched; or due to syphilis or tuberculosis, where there is a thinning of the sclera.

The abnormal presence of pigment in the sclera may be acquired or congenital. The acquired form may be due to foreign bodies,

to treatment with silver, etc., to extravasated blood or to inflammation and neoplasms; it is also seen in alcaptonuria and in certain congenital vascular conditions.

Congenital pigmentation of the sclera is usually associated with hyper-pigmentation of the iris, the fundus and even of the conjunctiva and cornea, it was first described by Desmarres in 1847. In the literature there are a hundred unilateral cases and only three bilateral; the condition has been given a variety of names.

The author has studied three cases, one unilateral and two bilateral; a very complete general examination of all these cases was made, with little of note to be found.

In the first case a cousin of the patient's father had suffered from a similar condition, the other two cases were sisters and were the only two of the family with this condition.

All three cases showed excessive pigmentation of the sclera, iris and fundus; the deposition of the pigment in the sclera, iris, etc., and the histology of the condition, as given by various authors, is related in detail. Some have found the pigment to be scattered throughout all layers of the sclera in fusiform cells, others have noted extracellular and perivascular pigment; the iris in these cases is dark brown and usually uniform in colour; this is due to numerous pigment cells which are scattered throughout the stroma of the iris.

In the ciliary body and choroid chromatophores and pigment cells are present in excess.

It has been observed that a mydriatic dilates the affected iris more slowly than the normal one. The unaffected eye has an iris of a different colour.

The conjunctiva may also be affected, and usually the pigment is most marked near the limbus. When corneal pigmentation is present it is superficial, and in the region of the limbus.

The congenital origin of the pigment has been debated by Angstein, who says that it is not truly congenital but develops in the first year of life; but it has been found in a 6 months foetus and also at term.

Francois says that it develops with the normal pigment, *i.e.*, at the 9th month, or often not at birth but within the first year; but this does not imply that it is not congenital.

As this condition may cause no symptoms, it may never be seen by a surgeon, it is often only noticed by the family in unilateral cases, and not in bilateral.

The course of the disease is usually stationary and benign, but it is sometimes difficult to know if this is so, as the case may never be seen until late, and the patient is not certain if it has increased during life or not, and the doctor may only have had it under observation for a short period.

Usher has observed 6 cases over a period of 15 years and then found practically no change; Collins watched one case for 10 years and it showed no appreciable change; Fleisher and Coats have noticed a certain progression in the scleral pigmentation.

In the author's unilateral case (watched for one year) no appreciable change was seen. It is not improbable that after puberty pigmentation may increase.

Brown-Doherty says that a melanotic eye predisposes to sarcoma in 29 per cent. of cases; others have noted a malignant change. The evidence in favour of malignant change is subject to error as the melanosis may not have been truly congenital.

Fuchs in 281 cases of melanosarcoma of the uvea thought that only 3 cases were due to change occurring in a melanosis.

One cannot, however, but see that there is a possibility that under some stimulation melanosis may undergo a degenerative change and become sarcomatous, or in some cases melanosis may have an element that predisposes to the growth of a neoplasm.

In the author's first case there was a partial ophthalmoplegia externa, and in the two children a convergent squint; the patients came for these conditions and not for the melanosis.

The general conditions of the patients show nothing of note; there is often some general pigmentation and a dark skin and hair, etc., this hyperpigmentation is generally physiological, comparable to an albino, where the pigment is lacking.

The condition is often familial; it may be carried on by the chromosomes, or the constitution of the gene of a chromosome may be changed by accident. The author discusses at some length the possibilities in heredity and factors changing the chromosomes, dominant and recessive characteristics, etc,

Returning to the subject of pigment in the sclera, pigment, contrary to the usual teaching, has been found in a small quantity in normal sclera; cells analogous to those found in the choroid have been seen in the sclera and in the optic nerve; they are specially localised along the course of the veins.

These cells are found in excess in melanosis and are most abundant in the places where pigment cells are usually found, *i.e.*, round the anterior ciliary vessels, etc.

According to Panico the primitive mesenchyne has two layers. the superficial forms the fibrous tissue and the deeper, which is vascular and has pigment, becomes the uvea. In some cases the mesenchymatous element of the pigmented type is included in the sclera and gives rise to pigment cells. It is probable that an inclusion of a large number of mesenchymatous vascular elements in the sclera gives rise to melanosis.

Filippi Gabardi has suggested that melanosis occurs primarily

in the uvea, and that there is a secondary migration into the sclera, and that this goes principally along the anterior ciliary vessels.

E. E. CASS.

(19) **Kiewe, P. and Maneff (Geneva).—Congenital and familial bilateral melanosis of the eye and the face. Contribution to the problem of consanguinity. ("Melanose bilaterale congenitale et familiale de l'oeil et de la face. Contribution au probleme de la consanguinité.")** *Ann. d'Ocul.*, Vol. CLXXII, p. 723, 1935.

(19) **Kiewe** and **Maneff** describe a male, son of first cousins, and his son, of dark complexion, both affected with melanosis of palpebral and ocular conjunctiva. The pigmentation of grey-brown colour was present as numerous small spots and confluent patches scattered diffusely over the palpebral conjunctiva especially at the fornices. On the eyeballs the pigmentation was rather more confluent, was widespread, but left a narrow zone free from pigmentation adjacent to the limbus. The slit-lamp and microscope revealed the pigment as being deposited immediately beneath the conjunctival epithelium and also upon the sclera. The irides were of very dark brown colour. The fundi of the father were not clearly visible owing to lens opacities, but in the son they were of especially dark colour but otherwise normal. The skin of the face and body in both presented innumerable pigment spots. In the direct progenitors for three generations no cases of melanosis were known.

Among reported cases of this condition only two are quoted as shewing a hereditary element, one affecting two generations (Selter) and one three generations (Bourquin).

HUMPHREY NEAME.

(20) **Giannoni and Focosi (Florence).—Recurrent vitreous haemorrhagic diathesis. (Emorragie recidivanti del vitreo e diatesi emorragiche).** *Boll. d'Ocul.*, March, 1936.

Petragnani (Siena).—The aetiology of recurrent vitreous haemorrhage. (Contributo all'etiopatogenesi delle emorragie recidivanti del vitreo). *Boll. d'Ocul.*, March, 1936.

(20) These two papers published in the same number of the same journal, come to very different conclusions. **Giannoni** and **Focosi**, the authors of the first, reject the suggestion of certain surgeons that the disease is due to some general infection, *e.g.*, syphilis or tuberculosis, and are of opinion that the real cause is to be sought in a diathesis similar to that which brings about

recurrent nose-bleeding. They hold that they are able to demonstrate in the series of cases which they record, the presence of special fragility of the smaller veins, a condition which has been called " intermittent venular angiopsatyrosis."

Petragnani on the other hand, as a result of the examination of three cases, concludes that the chief—though not the only—cause of this condition is tuberculosis. He has not found any clinical appearances which would suggest the presence of Buerger's disease (endoanginitis obliterans).

HAROLD GRIMSDALE.

(21) **Fink, Walter H. and Bryngelson (Minneapolis).—Relation of strabismus to right or left sidedness.** *Arch. of Ophthal.*, December, 1935.

(21) **Fink** and **Bryngelson** present this paper as a preliminary report, their object being to show that squint is not only a peripheral manifestation but is an indication of poor co-ordination of the organism as a whole. They investigated a series of 60 cases of convergent strabismus. 74 per cent. of these came from a left-handed stock, and in practically 60 per cent. control had been shifted from the dominant to the less dominant side. 64 per cent. had a family history of twin births, 39 per cent. had speech defects including stuttering, 18 per cent. had a history of stuttering, and 62 per cent. a family history of strabismus. The most significant fact is the high percentage of cases in which handedness was shifted from one side to the other, the shift being made early in life, usually before the onset of the strabismus. The effect of this is to upset cerebral dominance and so produce inco-ordination of function which may be generalised or be localised in the ocular association area.

F. A. W-N.

(22) **Sugita, Y. (Nagoya).—On the significance of Bowman's and Descemet's membranes in colloidal chemistry. (Ueber eine kolloidchemische Bedeutung der Bowmanschen und der Descemetschen Membran).** *Arch. f. Ophthal.*, Vol. CXXXIV, p. 321.

(22) **Sugita** made preparations of Bowman's and Descemet's membranes and also of the substantia propria from the corneae of ox eyes to test their permeability to crystalloids and colloids. He found that colloids were able to pass through the corneal stroma, but Bowman's and Descemet's membranes were impermeable to them, they were all, permeable to crystalloids.

He would therefore assume that Bowman's and Descemet's

layers are perfect dialysing membranes, preventing colloidal substances that have penetrated into the corneal stroma from passing into the epithelial and endothelial cells and interfering with their nutrition.

In this connection he discusses the Kayser-Fleischer ring of pigment at the edge of the cornea, the cause of which has not yet been determined. He puts forward the view that in this condition, as in arcus senilis with its analogous deposit of fat, there may be a deposit of colloid material at the corneal margin, and it is prevented from penetrating towards the centre of the cornea because of its denser structure and from passing forwards or backwards by reason of the function of Bowman's and Descemet's membranes above mentioned; infiltration of Descemet's membrane with the colloid may, however, in time arise when this function of the membrane becomes impaired and it becomes permeable.

THOMAS SNOWBALL.

(23) **Fontana (Modena).—The action of doryl on the size of the pupil and on the intra-ocular pressure. (Azione del doryl sulla tensione endoculare e diametro pupillare).** *Rass. Ital. d'Ottal.*, September-October, 1935.

(23) Doryl is a derivative of cholin; used in instillation it is able to produce in normal human eyes contraction of the pupil and diminution of the intra-ocular pressure. The effects on the pupil are greatest about an hour after the drop, on the pressure the result is delayed and greatest after six hours. In twelve hours the eye has returned to the first state.

In glaucoma the action of the drug is favourable. It is followed by a considerable fall in pressure, amounting in some cases to 20 mm. of mercury, about an hour after instillation. Fontana has used doryl also in cases of perforating wounds with prolapse of the iris; he finds that its contracting power is able to reduce the prolapse.

HAROLD GRIMSDALE.

(24) **Fiore (Naples).—Experiments on the action of derivatives of urea on the permeability of the haemato-ocular barrier. (Ricerche sull'azione di derivati dell'urea sulla permeabilita della barriera emato-oculaire).** *Boll. d'Ocul.*, December, 1935.

(24) Fiore has shown in previous papers that urea increases the permeability of this barrier to certain colouring matters and to arsenobenzol. In the present series he investigates the action of certain bodies, methyl and di-methyl urea and some barbiturates containing the urea group.

He finds that methyl and di-methyl urea have no action on the penetration of the colouring matters; but they increase largely the amount of arsenobenzol passing into the anterior chamber. The barbiturates were inactive in both respects. The author suggests that the presence of two uncombined groups NH_2 is necessary in the molecule to ensure the passage of the colouring matter. This he hopes to confirm by further experiment.

HAROLD GRIMSDALE.

(25) **Cattaneo (Perugia). — The musculature of the lacrymal canals. (Ricerche sulla muscolatura dei condotti lacrimali).** *Ann. di Ottal.*, November, 1935.

(25) From studies of sections of the canals and the surrounding muscles, **Cattaneo** draws the following conclusions.

The horizontal part of the canaliculus is surrounded by muscle fibres derived from Horner's muscle which are arranged partly parallel to the long axis of the canal, partly obliquely as regards this. The vertical portion of the canaliculus is surrounded by fibres chiefly at right angles to its course. The sections show that throughout the length of the canal the tunica propria has a subepithelial elastic layer, from which elastic fibres run to interlace with the muscle fibres; thus they form a close connection between the canal wall and the muscle.

HAROLD GRIMSDALE.

(26) **Biozzi (Bologna).—Fuchs' heterochromia iridis. (Osservazioni e ricerche sull'eterocromia di Fuchs).** *Boll. d'Ocul.*, January, 1936.

(26) The results of **Biozzi's** observations may be summarised thus; this form of heterochromia is always the expression of a chronic irido-cyclitis of very slow development; there is no evidence that it is due to some disturbance of the sympathetic nerves; in the majority of cases the primary cause is tuberculosis; in ten of the nineteen cases there was definite evidence of tuberculosis, and it was suspected in four others.

HAROLD GRIMSDALE.

BOOK NOTICES

Handbuch der mikroscopischen Anatomie des Menschen. Edited by WILHELM VON MÖLLENDORFF, Zürich. Vol. III, Part 2, The Eye. By the late W. Kolmer (Vienna) and H. Lauber (Warsaw). With 475 Illustrations. Pp. 782. Berlin: Julius Springer. Price, R.M. 150. 1936.

This elaborate treatise on the microscopy of the eye was begun by Professor Kolmer, but the only part which was completed by him before his lamented death were the chapters on the retina and the development of the eye. The rest of the book is by Professor Lauber, who has, however, been able to avail himself of microphotographs by Kolmer which comprise the majority of the illustrations. Professor Kolmer's article on the retina runs to 170 pages and is an exhaustive description of the human retina and also of the principal variations which occur in lower animals. It can be strongly recommended as the best and most up-to-date description at present available. It is to be regretted that Professor Lauber, with rare modesty, has considered himself unqualified to deal with the comparative anatomy of other parts of the eye and has almost entirely confined himself to the histology of the structures of the human eye, except where Professor Kolmer has left scattered notes which he has incorporated. The chapters on the cornea and lens have been brought up-to-date by including brief accounts of the knowledge acquired by the use of the slit-lamp; and a valuable account of the ultra-microscopic appearances of the vitreous has been provided.

The bibliography occupies 65 pages of small print, and is fairly complete as far as continental literature is concerned, but little attempt seems to have been made to cope adequately with literature in the English language. Moreover, Professor Lauber admits that he has not made a complete revision of the bibliography and has been content to add a further list to that already collected by Professor Kolmer. This is not a satisfactory arrangement in a treatise which professes to be an authoritative work and is essentially a book of reference.

Some of the microphotographs are poor, and we miss the beautiful lithographic drawings which used to embellish German works of this kind. Doubtless a good microphotograph which clearly shows the details which it is desired to depict carries more evidential conviction than a drawing, but unfortunately photographs, especially in halftone reproduction, are often ambiguous.

The work as a whole can be warmly recommended for its accuracy and comprehensiveness. We may hope that it will find a place in ophthalmological libraries, but the high price is probably prohibitive for most individuals.

Handbuch der Neurologie. Edited by O. BUMKE (Munich) and O. FOERSTER (Breslau). Vol. IV, Part 4, Section 2. The Cranial Nerves and the Pupils. With 173 Illustrations. Pp. 701. Berlin: Julius Springer. Price, R.M. 135. 1936.

This section of Bumke and Foerster's encyclopaedic so-called "Hand Book" of Neurology deals with the general symptomatology of the cranial nerves and the pupils. The first 37 pages deal with olfaction; the last 300 pages with the V, VII, IX, XI, and XII cranial nerves (18 pages) and the VIII nerve (280 pages). The most important portion from the ophthalmic point of view treats of the symptomatology of diseases of the optic nerve (78 pages) by Professor O. Marchesani of Munich, methods of investigating visual functions (38 pages) by Professor P. A. Jaensch, of Essen, symptomatology of disorders of movement of the eye (90 pages) by Professor A. Bielschowsky, of Breslau, and the pupils (57 pages) by Professor Jaensch.

After a brief description of the anatomy and conduction paths of the optic nerve, Professor Marchesani deals with symptomatology in four sections: choked disc, optic neuritis, optic atrophy and tumours of the optic nerve. He gives a good but somewhat involved account of the various theories of the pathogenesis of "choked disc," and although he agrees that the swelling is due to oedema and not to inflammation he almost pedantically avoids the useful and elegant term papilloedema. His account of the incidence of papilloedema agrees with that of other authorities. He lays stress upon its diagnostic importance in cases of supra- and parasellar tumours as compared with true pituitary tumours. He also draws special attention to a unilateral central scotoma as a sign of frontal tumour (Foster Kennedy syndrome). He, rather unexpectedly, supports Horsley's ipsilaterality theory, in spite of the evidence advanced by Paton and others against it. There is, of course, evidence in favour of it in cases of otitic cerebral abscess, especially in the cerebellar cases; and Marchesani draws attention to the increase of papilloedema which sometimes occurs after operative relief of these abscesses.

In the section on optic neuritis most space is devoted to various forms of retro-bulbar neuritis and toxic amblyopia, and surprisingly little reference is made to neuro-retinitis.

Jaensch's chapter on methods of examination seems rather out of place in a work of this kind. It is impossible in 38 pages to deal adequately with visual acuity, accommodation, light sense and colour sense, perimetry, etc., and the readers might well be referred to more satisfactory expositions of the subject.

Bielschowsky's article on muscle palsies, etc., is an extensive study by one who has made the subject his speciality.

Perhaps the chief merit of Jaensch's chapter on the pupils is that

it draws attention to the more recent work which has accumulated since Behr wrote his masterly article in the Graefe-Saemisch Handbuch (1924).

The articles on cranial nerves by Professor F. Kramer of Berlin are too superficial to contain much of special interest to ophthalmologists, but there is much that ought to interest them in the more extensive treatment of the VIIIth. nerve by Professor W. Klestadt of Magdeburg, especially in the section dealing with vestibular functions and posture.

It will be seen that the merits of this compilation are unequal, but as a whole it is well worthy of perusal.

Report on the Prevention of Blindness. London. Price, 2s. 6d. 1936.

This admirable report by the standing committee on the Prevention of Blindness of the Union of Counties' Association for the Blind fills 150 pages and should be read by all ophthalmic surgeons and by all whose work of what kind soever brings them into touch with the public health.

The report is divided into six chapters, 11 appendices and an index. The introductory chapter starts with the theme that a great deal of the blindness present today might have been prevented if suitable precautions had been taken in time.

In England the movement towards prevention of blindness began in 1879 with the formation of a society for the Prevention of Blindness and for the improvement of the Physique of the Blind, referred to here as the London Society.

Credé, of Leipzig, in 1881, announced his discovery that a solution of nitrate of silver instilled into a baby's eyes immediately after birth prevented in most instances the occurrence of ophthalmia neonatorum. The London Society at once recognised the importance of this discovery and did all it could to bring it to the notice of all concerned by the gratuitous distribution of leaflets. And soon after an anonymous donor enabled the society to offer a prize for the best essay on Prevention of Blindness. In 1885 Ernst Fuchs obtained the prize.

In 1889 the Royal Commission on the Blind, Deaf and Dumb issued a report which contained the following recommendations with regard to the Prevention of Blindness.

1. That intermarriage of blind persons should be strongly discouraged.

2. That information respecting the treatment of purulent ophthalmia should be circulated by the sanitary authority or through the post office.

3. That children with defective sight in elementary schools should be periodically examined by a medical officer and glasses ordered.

4. That greater attention to ophthalmic surgery should be encouraged among general practitioners.

The course of official activity is traced in this report on through the 1903 legislation, the Departmental Committee on the Welfare of the Blind in 1917, the 1920 Departmental Committee on the Causes and Prevention of Blindness, and the later activities of the International Association for the Prevention of Blindness. Chapter II deals with the eye in health and disease and is the clearest exposition of its subject we ever remember to have read.

Chapter III is on the ascertainment and treatment of eye conditions. The data are discussed under the headings: ante-natal; infancy; pre-school; school-age; adolescence and adult life.

The value of ante-natal work in combating venereal disease in the mother is obviously of the first importance in the matter of prevention of blindness. Much remains to be done in persuading women to make full use of ante-natal clinics, but the figures of those who do, show on the whole, a fairly steady rise. The arrangements for notification and treatment of ophthalmia neonatorum at first sight may look cumbersome, but the committee is convinced that, generally speaking, the machinery for dealing promptly and adequately with such cases is very fully developed. It cannot be too strongly emphasized that ophthalmia neonatorum is not always venereal in origin. It is of vital importance that an ophthalmic surgeon be available at all hospitals admitting cases of ophthalmia neonatorum.

The committee is not prepared to insist on the need for the use of prophylactic drops as a routine; they consider that the proper cleansing of the baby's eyes at birth is the first essential. If drops are made compulsory, silver nitrate in 1 per cent. solution is the best and the proper use of this drug must be included in the training of every midwife.

The school age period is well catered for with regard to eye diseases. Open air schools in crowded areas may well be an agent in the prevention of complications which may lead to grave impairment of sight, if not to blindness.

Between school age and working life there is a gap of about 2 years. While in a healthy child this may not be very serious, in cases of progressive myopia it is of real importance.

The follow-up service in hospital cases, inaugurated at the Central London Ophthalmic Hospital, receives notice and commendation in this report. And the provision of ophthalmic benefit by approved societies under National Health Insurance schemes is discussed.

Chapter IV deals with occupational blindness. This includes the effects of exposure to heat rays in iron and glass workers; the toxic

effects of certain chemicals used in industry, and miners' nystagmus, the last named not being a cause of blindness.

The question of occupational accidents is very fully considered. Many, in fact the majority of these are preventable if the workmen will only avail themselves of such means of prevention as protective goggles, gauze veils, lathe shields, etc.

Chapter V consists of summary and recommendations and the last chapter consists of suggestions for the future.

The committee is satisfied that present arrangements do not secure that, in general, the medical practitioner has the requisite knowledge of ophthalmology; they consider that this matter should continue to receive the close attention of the Curriculum Committee of the General Medical Council.

Statistical records must be based on the report of specialists in ophthalmology, and a common standard should be applied. The standards of the committee of enquiry into problems relating to partially-sighted children, especially in cases of progressive myopia are commended. It is also essential that squint should be treated as early as possible. Sympathetic ophthalmitis must still be reckoned with as a most serious danger. Children are particularly susceptible.

"If the campaign for the prevention of blindness is to achieve its object, there must be an authoritative body whose primary functions will be: to classify and collate statistical information placed at its disposal; to advise what further statistical information should be obtained; to indicate in what directions and on what lines further research should be carried out; to examine and collate the results of research; to advise on propaganda; to advise government departments, local authorities and agencies concerned with the welfare of the blind on questions referred by them; and to receive from, collate and circulate to, representative bodies in other countries information on the prevention of blindness."

Up till now these conditions have been fulfilled in the constitution of the Committee whose report is the subject of this notice. We note that its members are willing to carry on this work, if the financial arrangements can be made.

It will be a calamity if proper arrangements are not made, for the amount of spade work done by this committee has been immense. The present report separates the essentials from the non-essentials and will form a sure foundation for future work in this connection.

Diseases of the Eye. By SIR JOHN PARSONS. Eighth edition, with 21 plates and 360 text figures. Pp. 685. London: J. and A. Churchill, Limited. Price, 18s. 1936.

This well-known book has now reached its eighth edition, and the fact that the seventh was published only two years ago, is an

indication of its deserving popularity. As the author says in his preface, no very radical changes have been made in the new edition, and the general form of the book remains as it was. It is longer by 20 pages and there are seven more text figures. Some valuable information has been added on the mode of action of miotics and mydriatics and the part played by acetylcholine. The use of this substance is also alluded to in cases of blockage of the central retinal artery, and the rôle of histamine in the production of congestive glaucoma is mentioned. In the section dealing with cataract, the author has included a short account of recent work on the biochemistry of the lens, and the function of glutathione. Various other additions are to be found in different parts but as this is essentially a standard text-book, and not an account of recent research work in ophthalmology, the author has wisely refrained from attempting to incorporate every new discovery or theory of the last two years. This eclecticism is one of the striking features of "Diseases of the Eye," and illustrates the wisdom of taking the *via media*.

The appendix giving the requirements of candidates for admission into the public services has been brought well up to date and incorporates the new regulations for the Navy. Important changes have been made here with which ophthalmologists should familiarise themselves.

Once again we should like to congratulate Sir John Parsons on his admirable text-book which is not too short and not too long, has been carefully and judicially written and revised and obviously satisfies a widely spread demand for a work of this character.

Cercetari si Studii in Oftalmologie. By NICHOLAS BLATT. Bucharest. 1935.

This handsome volume of 377 pages is in the Roumanian tongue and we do not claim to be able to read this. Dr. Sanford R. Gifford, of Chicago, provides a foreword in which he emphasises the importance of Dr. Blatt's work as "an ophthalmologist practising in a relatively small town, far removed from the facilities and contacts of a university clinic," and Dr. Riconte, of Bucharest, has kindly sent us a précis of the contents. The book is very well printed and illustrated, and each chapter besides giving free play to the author's personal views is provided with liberal documentation of those of others.

The author has done much experimental work on ocular transplantation and gives here his results. Other chapters cover the whole field of ophthalmology and his chapter on the modern treatment of retinal detachment shows that he is up-to-date.

Dr. Riconte singles this chapter out as especially good. Dr. Blatt has been a prolific author of papers both on the continent and in America. His book will be a handy form of reference to many aspects of ophthalmology and we wish it success.

CORRESPONDENCE

To the Editors of THE BRITISH JOURNAL OF OPHTHALMOLOGY.

SIRS,—While admiring the clear account by Mr. MacCallan on "the relationship between conjunctivitis and trachoma," I would like to comment on his view that trachoma is ***exclusively*** a chronic disease.

Before the War, as a young assistant in Russian Poland, with my senior, Dr. L. Pines, I examined between ten and fifteen thousand emigrants to the United States per year. Each aspirant was examined as to his eyes after crossing the Russian frontier into Germany, on his embarkation and on arrival at Ellis Island. If rejected at any of these points he was sent home by the Shipping Company free of charge. So the Company's medical officers only passed candidates with perfectly healthy conjunctivae; even cases of mild conjunctivitis were rejected.

The journey of a successful emigrant took *2* to 4 weeks. I distinctly remember seeing more than once each year emigrants who, having been passed by us, had reached Ellis Island only to be sent back with acute trachomatous conjuntivitis, usually with a heavy pannus of the cornea. Each told the same story. On the 2nd or 3rd day out of port, in the cramped quarters, the eye suddenly flared up, and persisted in this state all the time, curiously, it was usually one eye for a long time, and the other became involved much later. Admittedly they were rarities, but they strongly suggest that trachoma may attack the eye suddenly and violently.

Yours truly,

N. PINES, M.B.

41, PHILPOTT STREET.

E.1., *June 11, 1936.*

OBITUARY

W. G. LAWS

It is with deep regret that we record the death of Mr. William George Laws, which took place at his home at King's Langley, on May 27. Mr. Laws was in his 75th year and had retired from his practice in Nottingham about 5 years ago. His father was City Engineer of Newcastle-on-Tyne for a quarter of a century and his mother, Ellinor Shields, was also from the North Country. Laws was born at Barrasford, Chollerton, Northumberland and was educated at Newcastle Grammar School and Durham University. His medical education was at Edinburgh University and St. Thomas's Hospital; Qualifying M.B., C.M., at Edinburgh in 1888, he came to London and took the F.R.C.S.Eng. in 1892. At St. Thomas's he came under the influence of Nettleship and Lawford and it goes without saying that he was thus a first class clinician.

Laws settled in Nottingham where he was surgeon to the Nottingham and Midland Eye Infirmary for many years and where he acquired a large practice in the city and surrounding neighbourhood. At the time of his death he held the post of Consulting Ophthalmic Surgeon to his old hospital.

For many years he was a member of the Editorial Staff of the Ophthalmic Review and he also acted as sub-editor for some years early in the present century. Laws joined the Ophthalmological Society of the United Kingdom in 1889 and served for a period on the Council. He was also at one time a member of the Board of Directors of this Journal.

Apart from routine editorial work for the Ophthalmic Review he did not write much; but he was the author of some papers in the Transactions of the Ophthalmological Society, mostly of clinical type.

Quiet and rather reserved in manner Laws disliked publicity; he was a staunch friend to all who sought his help both in professional matters and in other walks of life, and he was kindness personified. No one could meet Laws without at once recognizing his transparent honesty and, his professional attainments being of a high order, he was naturally much respected in Nottingham.

Towards the end of his professional career he lived at Car Colston, across the Trent, where he rejoiced in the possession of a garden. And he took great interest in all pertaining to the history of the neighbourhood, and particularly in Southwell Minster, the cathedral of his diocese. Much sympathy will be felt for his widow and daughter in their bereavement.

Photo by Edwin Hadley, Nottingham

WILLIAM GEORGE LAWS.

W. H. WILMER, of Washington

The death of Dr. William Holland Wilmer was briefly recorded on page 255. A memoir of him appeared in the June issue of the *American Journal of Ophthalmology* from which the following facts are abstracted.

Wilmer was the son of the Rev. Richard Hooker Wilmer and was born in 1863, in Virginia. He had his medical education at Virginia University and took his degree in 1885. He then served an internship at a New York Hospital, and after two years as assistant to Dr. Emil Gruening; he began practice at Washington in 1889. In 1897 he took an active share in the foundation of the Episcopal Eye, Ear and Throat Hospital, and in 1906 became Professor of Ophthalmology in Georgetown University. In 1917 he became Major in the Medical Corps of the United States Army, and served in charge of a Research Laboratory for Air Service at Mineola. He rose to be Brigadier-General in the Medical Reserve Corps.

The Wilmer Ophthalmological Institute of Johns Hopkins University is a tribute to his standing as an ophthalmologist in the States. Before the buildings were planned Wilmer gave up his practice at Washington and went to Baltimore to organize his new Institute. He came to Europe to study the great hospitals and in 1927 started work in temporary quarters. The Institute was formally opened in 1929, with addresses from Ernst Fuchs, Dr. George de Schweinitz and Sir John Parsons.

Until last year, when he reached the retiring age, Wilmer was in charge of this great Institute, and on ceasing to hold the Directorship he went home to Washington and resumed private practice. Wilmer died suddenly of a heart attack on March 12, 1936; his body was buried in the grounds of Washington Cathedral.

Besides being a specially skilled ophthalmic surgeon Wilmer had the kindest of hearts and was loved by a large circle of patients and friends. Dr. Edward Jackson writes: "His was a balanced character. He was the same to a negro woman in his clinic, or the British nobleman, or French ambassador, to Charles Lindbergh, or the King of Siam."

Dr. Wilmer held the Distinguished Service Medal and the Cross of a Commander of the Legion d'honneur.

He did not write much, and his magnificent atlas on the Fundus Oculi is his chief work.

Perhaps the writer of this notice might mention that though Wilmer and he had never met, he was the recipient of many kind and congratulatory letters at various times during the past few years. That he should have found time in his busy work to write to an unknown author was characteristic of the man.

NOTES

Honours

AMONG the list of Birthday honours we are pleased to see the name of Sir Richard Cruise, who receives the G.C.V.O.; and that of Lieut. Col. Strathearn, Warden of the Hospital of St. John of Jerusalem Ophthalmic Hospital, Jerusalem, who becomes a Knight Bachelor.

* * * *

Royal Society of Medicine

IT is with great pleasure that we learn that Sir John Parsons has been elected President of the Royal Society of Medicine. He is the first ophthalmologist to attain this distinguished office. In the past the Society's ancestor, the Royal Medical and Chirurgical Society, had three Presidents, notable as ophthalmologists: Benjamin Travers in 1827, Sir William Lawrence in 1831, and Sir Jonathan Hutchinson in 1894. They were each general surgeons in the first place. The addition of Sir John Parsons will confer added lustre to a distinguished band and we offer him and the Society our most hearty congratulations.

* * * *

Appointments

THE following appointments are announced in connexion with the Household of His Majesty the King.

Surgeon Oculist: Sir Stewart Duke-Elder.

Consulting Surgeon Oculist: Sir William Lister, K.C.V.O., K.C.M.G.

Surgeon Oculist to the Household: Mr. Frank Juler.

Consulting Oculist to the King in Scotland: Dr. A. H. H. Sinclair.

Surgeon Oculist to Her Majesty Queen Mary: Sir Richard Cruise, G.C.V.O.

FUTURE ARRANGEMENTS

1936

October 6.—Midland Ophthalmological Society, at Birmingham Eye Hospital.

December 1.—Midland Ophthalmological Society, at Birmingham Eye Hospital.

CONTEMPORARY OPHTHALMIC LITERATURE

Archives d'Ophtalmologie. *June, 1936.*

FRANCESSCHETTI and ROULET. The syndrome of Groenblad and Strandberg (angioid streaks of the retina and pseudo-xanthoma elasticum) and its relations with the affections of the mesenchyme.
PUSCARIU. Epithelioma of the superior tarsal conjunctiva.
FRANÇOIS. Marginal corneal degeneration.
DJACOS. Cataract from electrocution.

Annales d'Oculistique. *May, 1936.*

OURGAUD, SÉDAN and ROUX. Enlargement of the nasal visual field after sclerecto-iridectomy in various cases of chronic glaucoma.
HUMBERT and ROSSANO. Clinical and electrical study in a case of hereditary and familial partial facial diplegia.

Annali di Ottalmologia e Clinica Oculistica. *March, 1936.*

CORRADO. The behaviour of ocular tissues under the action of chemical and pharmacological substances introduced into the anterior chamber and the vitreous. (Experimental and histopathological research.)
DE SANCTIS. Observations on some rare forms of keratitis (*a*) Superficial neurogenous keratitis, (*b*) Familial degeneration of the cornea.
MECCA. Retinitis pigmentosa. Clinical and experimental contribution to the aetiology and treatment.
SCALINCI. Nosology and therapy in the "Ars probatissima oculorum" of Benvenuto Grasso, medical oculist of the 13th century.

Bollettino d'Oculistica. *May, 1936.*

COLLENZA. Primary palpebral melano-sarcoma
BIETTI. Bilateral blepharochalasis dacryoadenoptosis and dacryops in a subject with hypothyroidism.
PETRAGNANI. Micotic dacryocanaliculitis.
PUGLISI-DURANTI. Unilateral microphthalmos and central corneal opacity.
SMALTINO. Considerations on a case of glioma retinae cured with radiotherapy.
STILO. Study on the reticular fibres of the human lid.
BARATTA. Visual field. Retinal arterial pressure, intra-ocular pressure in pregnancy and labour.

Rassegna Italiana d'Ottalmologia. *January-February, 1936.*

ACCARDI and ROSSI. Tissue grafts into the anterior chamber with particular regard to ovarian grafts and to the biological reactions of pregnancy.
CAOCCI. Primary lymphosarcoma of the conjunctiva.
LICHERI. A case of expulsive haemorrhage following a perforating septic corneal ulcer.
CIOTOLA. Research on the vascular condition of glaucomatous patients with particular regard to the medial arterial pressure and to the venous pressure
POSSENTI. Cod liver oil for local application in ocular disease.
MUSCATELLO. Orbital lipogranulomatosis.
D'OSVALDO. Corneal clearing from inter-current keratitis in Groenouw's disease.
DURANDO. Metastatic subscleral abscess from staphylococcus aureus.
DUC. Ocular calcification.

March-April, 1936.

SALA. Endocrine cataract.
MAMOLA. Variations in the glucose content of the aqueous humour of rabbits after extirpation of the superior cervical sympathetic ganglion.
TRISTAINO. A case of Jensen's juxta-papillary retino-choroiditis.
PATRIARCA and DUC. Dacryocystorhinostomy by the nasal route.

CORRADO. Contribution to the study of malignant scleritis.
CARDELLO. Plasmoma of the lacrymal sac.
TESTA. Oxycephaly and alterations of the optic foramen.
SIOTTO. The vascular venous relation of the mascellary sense with the orbital cavity.

Klinische Monatsblätter für Augenheilkunde. *June, 1936.*

KAYSER. Histological and anatomical condition of the genuine globular mengalocornea.
BÜCKLERS. Cure of sympathetic ophthalmitis through the use of atophanyl and cyclotropin.
GROENOUW. Sympathetic eye disease following gonorrhoeal corneal ulceration, observed after 19 years.
VON HORVATH. Cataract operation with capsule extraction following after.
FILATOW. Filatow-Marzinkowsky trephine for corneal grafting.
LÖWENSTEIN. Lipoid infiltration in humans and experimental animals.
ROHRSCHNEIDER and REINERS. The appreciation of the lung condition in suspected tuberculous disease of the eye.
PODESTA. Contribution to the question of the limits of congenital colour sense disturbance, especially of total colour blindness.
ONISI. Prowazek bodies, geographical and statistical observations on their occurrence.
HAGEDOORN. Senile keratoma.

Archivos de Oftalmologia Hispano-Americanos. *June, 1936.*

DOMINGUEZ. Clinical differentiation of the diverse pathogenic mechanisms producing ocular hypertension.
SORIA. Orbital pseudo-tumour.

Revista Cubana de Oto-Neuro-Oftalmiatria. *March-April, 1936.*

YANES. Occupational ocular accidents in the monocular worker.
ALBO. A sub-acute case of opticomyelitis.
ESTEBAN. Concerning the first cure in the cataract operations.

Archivos de Oftalmologia de Buenos Aires. *April, 1936.*

DAMEL. Anatomy of the retinal vessels.
LAGLEYZE. Corneal tattooing.

May, 1936.

CHARLIN and GOMEZ. Dental focal infection in ophthalmology.
LUQUE. Retinal angioscopy in arterial hypertension.
PEREIRA. Statistical study on operations for senile cataract in the Professorial clinic.
LAGLEYZE. Corneal tattooing.

Revista Oto-Neuro-Oftalmologica y de Cirugia Sud-Americana.

May, 1936.

PAVIA. A new adaptometer.
MATTOS. Congenital epipapilla membrane.
AGUILAR and PAVIA. Tuberculous iridocyclitis and pulmonary tuberculosis.

June, 1936.

PAVIA. A new adaptometer.
MATTOS. Familial syphilitic macular lesion.
WORMS and LEROUX-ROBERT. Acute angioneurotic oedema.